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# **THE MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY**

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# **THE MICHIGAN MUNICIPAL BOND AUTHORITY**

Janet Hunter-Moore, Executive Director

Under the Authority of Part 54, Clean Water Assistance, of the Natural Resources  
and Environmental Protection Act, 1994 PA 451 and the Shared Credit Ratings Act, 1985 PA 227

**Present the**

## **FISCAL YEAR 1999 ANNUAL REPORT of the MICHIGAN DRINKING WATER REVOLVING FUND**

Prepared by:  
Municipal Facilities Section  
Environmental Assistance Division  
PO Box 30457  
Lansing, MI 48909-7957  
517-373-2161

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## Table of Contents

I.	Introduction	3
II.	Program Contacts	3
III.	Program Structure	4
IV.	Long-term Goals	4
V.	Short-term Goals	6
VI.	Establishment of Interest Rates	9
VII.	Advantages of the Drinking Water Revolving Fund	10
VIII.	Allocation of Funds	11
IX.	EPA Automated Clearinghouse Activities	12
X.	Assurances	12
XI.	Summary	12

### Attachments

Chart 1 – Cumulative Funded Projects

Chart 2 – Category Costs

Chart 3 – Initiation of Operation Dates

## **I. INTRODUCTION**

On August 2, 1996, the Congress of the United States passed the Safe Drinking Water Act (SDWA) amendments of 1996 (P.L. 104-182). This legislation authorized the creation of a revolving fund to provide low-interest loans to qualified water suppliers for repairs or enhancements to public water supply systems. In theory, this fund would be very similar to the State Revolving Fund (SRF) created to assist water pollution control projects.

Michigan responded to the new federal program by creating the Drinking Water Revolving Fund (DWRF). As with the SRF, the DWRF is co-administered by the Department of Environmental Quality (MDEQ) and the Michigan Municipal Bond Authority (MMBA). The MDEQ handles all programmatic issues, while the MMBA serves the program with its financial expertise.

While there are many similarities between the SRF and the DWRF, there are some notable differences. For instance, the SRF is permitted to fund only municipalities, while the DWRF may include privately owned community water suppliers. The SRF has very limited set-aside funds, whereas the DWRF makes liberal use of special set-asides to fund administration, capacity development, source water protection, source water assessments, etc. The loan repayment length in the SRF is limited to 20 years, while the DWRF can extend up to 30 years for communities that qualify as “disadvantaged.”

## **II. PROGRAM CONTACTS**

For financial issues dealing with the bonding structure, bond documents, financial detail and audit results, please contact:

Ms. Janet Hunter-Moore, Executive Director  
Michigan Municipal Bond Authority  
Treasury Building  
Lansing, MI 48922

For technical reviews of DWRF projects, permit issuance, and administration of the set-aside programs authorized by the SDWA, please contact:

Mr. James Cleland, Acting Chief  
Drinking Water and Radiological Protection Division (DWRPD)  
P.O. Box 30630  
Lansing, MI 48909-8130

For program oversight, grant administration, and project management issues, please contact:

Mr. Thomas Kamppinen, Chief  
Municipal Facilities Section (MFS)  
Environmental Assistance Division  
P.O. Box 30457  
Lansing, MI 48909-7957

### III. PROGRAM STRUCTURE

Michigan operates the DWRF within a financing structure similar to that of the SRF. We offer loans to qualified applicants who possess at least investment grade bond ratings through their own ratings or through other credit enhancements.

For water suppliers who are municipalities with granted bonding authority, this presents no significant challenges. The DWRF sells tax-exempt revenue bonds to provide money that is used to reimburse communities for incurred costs. As the DWRF reimburses suppliers, federal funds from the capitalization grant and state funds from the grant match are transferred into a debt service reserve account to provide coverage for the leveraged bond issue.

Both the DWRF and the SRF received highly favorable ratings in July, 1999 from Moody's Investor Services and Standard & Poors, Aa1 and AA+, respectively. These ratings demonstrate a high level of confidence in the structure and administration of Michigan's infrastructure programs.

### IV. LONG-TERM GOALS

Michigan's DWRF established a new funding source designed to protect and preserve public health within the state's boundaries. Michigan's geographical identity as a Great Lakes state affords its citizens with an abundant and high quality water resource from which to draw its drinking water. Unlike many states, Michigan water supplies are plentiful and periods of restricted use are few and far between in most communities.

Given our abundant water resource, the greater challenge for water suppliers lies in protecting the high quality of the resource as well as ensuring that adequate volume and pressure exist to deliver potable water to the customer.

In light of the interest in protecting public health, the MDEQ has undertaken efforts toward the attainment of Michigan's following long-term goals as stated in the Intended Use Plan (IUP):

- 1. To achieve and maintain statewide compliance with all applicable state and federal drinking water laws, rules and standards.***
- 2. To protect the public health and environmental quality of our state.***
- 3. To develop and commence a source water assessment and a wellhead protection program.***
- 4. To develop strategies within the DWRF to assist smaller, economically disadvantaged communities in meeting drinking water standards.***
- 5. To promote the DWRF as a viable tool for use by Michigan water suppliers in financing their waterworks system improvements or upgrades.***
- 6. To secure Michigan's full share of federal funding and to expeditiously obligate these moneys, along with the state contributions, for the construction of eligible facilities which meet state and federal requirements.***

**7. *To develop effective partnerships with other federal and state financing sources to promote efficiency in environmental review procedures and coordination of funding.***

Michigan is proud of its accomplishments in promoting compliance with all applicable drinking water requirements. Prior to the creation of the DWRF, project financing for community water supply was left largely to the local unit of government or to individuals investing in their own supply wells. The DWRF provides a source of infrastructure financing which assists communities in protecting both public and environmental health and well being.

In Fiscal Year (FY) 1999, 21 loans were made totaling \$51,380,000. This brings the DWRF to a total assistance of \$104,618,000 for 45 water supply projects since 1997. At the November 1999 Conference for the Council of Infrastructure Financing Authorities, Michigan was recognized as one of five states that had committed over 70 percent of available loan funds through June 30, 1999. During the last quarter, Michigan made loans committing 100 percent of available funds (see Chart 1).

To achieve the long-term goal of maximizing benefits for “disadvantaged” communities, the MDEQ first defined how they could qualify, then identified additional benefits which would lessen their financial impacts. These additional incentives include loans with repayment over 30 years; use of technical assistance funds to help defray the costs of project planning; and 50 additional points in the priority scoring. To qualify as a disadvantaged community, a water supplier must:

- Meet the definition of “municipality” established in Sec. 5402(g). Private suppliers, such as manufactured housing communities, subdivisions, churches, or other non-municipal systems may not achieve this designation if they are the applicants for DWRF assistance.
- Directly assess users within the area served by the proposed water supply project for the costs of construction. Municipalities that choose to assess construction costs over a wider area than the service area of the project may not qualify as a disadvantaged community unless the entire area to be assessed for the project meets the criteria set forth in Part 54. This may ease the economic impact of utility rates by spreading them over a larger user base, however such action may not circumvent the intent to assist only those users truly unable to pay for the waterworks system improvements.
- The water supplier must also demonstrate at least one of the following:
  1. More than 50 percent of the geographic area to be served by a proposed public water supply project is identified as a poverty area by the U.S. Bureau of the Census.
  2. The Median Annual Household Income (MAHI) for the area to be served by a proposed public water supply project is less than the most recently published Federal Poverty Guidelines for a family of four in the 48 contiguous United States. These guidelines are published annually by the Department of Health and Human Services.

3. The MAHI for the area to be served by a proposed public water supply project is less than the most recently published statewide MAHI for Michigan, and annual user costs [as defined in 1994 PA 451, Section 5401(B)] for water supply will exceed 1.5 percent of the MAHI of the area to be served by the proposed public water supply project.
4. The MAHI for the area to be served by a proposed public water supply project is greater than the statewide MAHI for Michigan, (up to 120 percent) and annual user costs for water supply will exceed 3 percent of the MAHI of the area to be served by the proposed project.

A municipality will not qualify as a disadvantaged community if the MAHI of the service area exceeds 120 percent of the updated statewide MAHI.

## **V. SHORT-TERM GOALS**

In order to accomplish the long-term goals, we focused on more immediate objectives. Therefore, our short-term goals in FY1999 were:

### ***A. To continue our outreach effort to publicize the DWRP through direct mail, electronic media, newsletter publication, workshops, and meetings.***

Our outreach efforts have been very successful as is evidenced by the fact that we have over twice as many projects requesting assistance as we have funds available. The interest in the program has exceeded expectations.

Program managers continue to meet with interested public water suppliers, consulting engineers, and Associations with an interest in water supply issues.

### ***B. To promote the disadvantaged community assistance.***

The concept of additional assistance for disadvantaged communities is new to the DWRP. Many local officials and consulting engineers simply have not been clear about how their communities may qualify for the benefits that may be available. However, the communities of White Cloud and Lexington have qualified as disadvantaged. Both communities took advantage of the assistance and received reimbursement of their planning costs from the Technical Assistance set-asides. They also took advantage of the 30-year loan repayment provision.

### ***C. To staff up and develop implementation plans for source water protection focused on statewide surface water assessments and groundwater assessments in areas tributary to the Great Lakes.***

The SDWA amendments required states to submit their Source Water Assessment Programs (SWAP) by February 6, 1999 for EPA approval.

The intent of the SWAP is to identify the areas that supply public tap water; inventory contaminants and assess water supply susceptibility to contamination; and inform the public of the results. Michigan has almost 12,000 community and non community

public water supplies with an estimated 18,000 sources to assess. With the allowable 18-month extension, the assessments are to be completed by May 2003.

In FY1997, Michigan reserved the maximum set-aside--ten percent of the initial federal capitalization grant. This reserved \$5,968,110 to carry out the SWAP activities. There were no expenditures for SWAP during that fiscal year, but in FY1998 MDEQ expended \$372,879, and in FY1999 the MDEQ expended \$1.4 million.

SWAP activities over the past fiscal year were largely focused on start-up. The MDEQ negotiated non community assessment contracts with Michigan State University Institute of Water Research and local health departments. Global positioning equipment, well key entry systems, and well location aids were tangible components of the contracts.

There have been eight advisory committee meetings held, along with numerous training sessions. In addition, DWRPD staff has developed a Joint Funding Agreement with the U.S. Geological Survey, held four public meetings, made several public presentations, initiated assessment discussions with the city of Detroit, started development of a hydraulic flow model for the St. Clair/Detroit River flow system, and completed the SWAP document. The SWAP document was approved by the EPA in October 1999.

SWAP activities will continue over the next four years to achieve the goals established by the SDWA.

***D. To enhance the State's Wellhead Protection Program.***

Efforts to enhance wellhead protection areas (WHPA) of community water supplies embrace two fronts. During FY1999, the DWRPD initiated a comprehensive program to manage abandoned wells located inside delineated or designated WHPAs. In addition, the DWRPD is in their second round of a matching grant program for development and implementation of local Wellhead Protection Programs (WPP) under the existing voluntary state program.

The Abandoned Well Management Program (AWMP) couples a statewide public education initiative with demonstration projects conducted in three Michigan communities. The education outreach involved stakeholders such as water utility managers, local health department staff, registered well drilling contractors, city planners, consulting engineers and MDEQ staff. Draft rules have been completed for a grant program to assist communities with well abandonment in WHP areas.

Three demonstration projects were completed and raised the level of public awareness concerning environmental threats posed by unplugged abandoned wells. The communities of Niles, Roscommon and Coldwater were selected from a group of 13 applicants who reflected a variety of geological and demographic conditions. The demonstration projects undertook efforts to:

- Locate all available water well drilling records within the WHPA.
- Conduct field surveys to locate all wells.
- Identify all property owners within the delineated or designated WHPA.

- Document unplugged abandoned wells.
- Secure property owner participation.
- Contract with registered well drilling contractors to plug abandoned wells.
- Verify proper plugging procedures.
- Document or map “active well” locations using Global Positioning System technology.

An average of unplugged abandoned wells per square mile of WHPA was estimated using data gathered during the demonstration projects.

Other program highlights include:

- Participation in six well plugging demonstrations with the Michigan Department of Agriculture and the Ground Water Stewardship program which facilitate statewide uniformity with well abandonment requirements in the field.
- Uniform interpretation of state rules involving abandoned well management issues.
- Technical assistance for water utility managers and local health departments.
- Creation of a digital image library of well plugging activities for use with multimedia presentations.
- Evaluate abandoned well program data from a nation-wide survey.
- Assembly of maps of delineated wellhead protection areas.

The DWRPD allocated and spent \$225,000 from the set-aside funds for the AWMP. Staff expenses included one FTE assigned to the Ground Water Supply Section to coordinate the program. Two student assistants were utilized during the summer to assist community water utility managers with record searches and field surveys at the three demonstration sites. In addition, initial start-up expenses for locating and plugging abandoned wells with the WHPA of the demonstration project communities were allocated during FY1998.

***E. To identify and establish a Technical Assistance Program for small communities.***

There are no authorized FTEs for this program. Existing staff in the DWRPD and EAD/MFS will administer it. The total set-aside allocated from the FY1998 capitalization grants for technical assistance equals \$1,612,650. During FY1999, two communities qualified for disadvantaged community set-aside funds. The villages of Lexington and White Cloud received \$29,561 and \$14,088.81 from the Technical Assistance Set-Aside for reimbursement of their planning costs.

The expected uses of the funds should occur beginning in FY2000. The DWRPD has developed contract specifications and offered a four-year contract to provide site-specific technical assistance to community and non transient, non community public water supplies serving a population less than 10,000. The contract underwent a competitive bidding process and was awarded in January 1999. The contractor has initiated work and \$40,000 was expended in FY1999.



Remaining funds in the technical assistance set-aside are available for communities that qualify as disadvantaged communities with less than 10,000 population. These moneys will be used to help defray the cost of planning for projects submitted by the local officials.

***F. To clarify the issue of segmenting versus phasing of projects.***

Beginning with FY1999, we implemented a policy on segmenting only those projects that exceed 30 percent of available funds. Suppliers requesting that their projects be undertaken over multiple years will be assigned separate numbers and identified as separate or phased projects, and they will not be given super priority for subsequent phases.

***G. To fund projects identified in the IUP, enabling them to proceed with construction of facilities included in their adopted project plans during FY1999.***

The DWRF provided low interest financing to 21 projects totaling over \$51 million. The MDEQ and the MMBA committed 100 percent of available project funds in FY1999.

Project plans submitted for consideration by the MDEQ have exceeded expectations. The demand for DWRF loans is more than double the available funds.

***H. To identify stakeholders and invite their participation in the development of Administrative Rules for conducting capacity assessments of certain water suppliers.***

Meetings have been held with stakeholders seeking input that will result in the development of criteria and promulgation of rules.

The set-aside amounts identified above, and others such as for administration, capacity development, and operator certification, represent one of the major differences between the SRF and the DWRF. The set-asides in the DWRF are derived from the overall capitalization grant awarded to the state by the EPA.

Legal provisions now included in 1985 PA 227 permit the state to establish accounts and sub-accounts within the DWRF to track revenues and expenditures for the set-asides. The set-asides for program and other activities are administered by the DWRPD. Staff of the DWRPD is also responsible for the technical assistance activities, except for those funds made available to subsidize loans to disadvantaged communities. The administrative set-aside is managed by the MFS.

Summaries of each set-aside activity have been prepared by staff of the DWRPD and are available upon request.

## **VI. ESTABLISHMENT OF INTEREST RATES**

The primary advantage for Michigan water suppliers is their ability to borrow funds at below market rates. The DWRF interest rate is established prior to each new fiscal year. As identified in Part 54, 1994 PA 451, determination of the interest rate is based on demand, market conditions, program costs, and future needs. Since a portion of the state match in any given fiscal year may be financed with State Revenue Match bonds, the

upcoming year's interest rate must also account for the expense incurred in securing these bonds.

The DWRF is unique when compared against the SRF in that both municipal and non-municipal water suppliers may participate if they are qualified. In assessing the market conditions for each type of entity, it was quickly apparent to MDEQ staff that a municipality would enjoy lower rates of interest on the open markets than would a private, non-municipal supplier who would normally have to obtain financing through commercial lending institutions.

Given the different starting points, MDEQ staff proposed to the Director that the relative amount of subsidy given to each type of water supplier should be equal to ensure that each received comparable benefit. However, this would result in the establishment of two rates of interest, one for municipal borrowers and one for non-municipal borrowers.

The MDEQ computed the different rates by starting with the General Obligation (GO) 20 Bond Index, which are regularly published in financial journals. This is the primary indicator of municipal market rates upon which we have historically based our SRF interest rate recommendations. The 26-week average in the GO 20 Bond Index just prior to developing the IUP was 5.17 percent.

Correspondingly, a telephone poll of several banks operating throughout Michigan found generally that the terms offered on loans to manufactured housing communities for infrastructure financing would include 15 year payoffs, with variable rates of interest based on either federal Treasury-bill rates, plus between 185-280 basis points, or prime plus 2-4 percent. They generally wanted a first mortgage, with the park as collateral. The most favorable rates found in this polling brings the rates in at about 7.8 percent on the open market at the present time.

Examining the other criteria identified in Part 54 led the Director to set a 2.5 percent rate for municipal applicants in the DWRF. To equal the corresponding benefits to such applicants, the rate for non-municipal participants was set at 4.94 percent.

This latter type of borrower would also have to provide a letter of credit, or some other qualified credit enhancement to ensure that they would be investment grade. Subsequent discussions with the first non-municipal applicants have caused us to re-evaluate the requirement for a letter of credit. It has proven to be more costly to the DWRF applicant and there seems to be reluctance on the part of the banks to issue them.

The MDEQ will work with the Michigan Banking Association, the Michigan Manufactured Housing Association and other interested parties in trying to broaden opportunities for credit enhancements during FY2000.

## **VII. ADVANTAGES OF THE DWRF**

Apart from the low interest rate, suppliers also benefit from the DWRF in that they can finance all eligible waterworks system costs. The major benefit results from the fact that water supply financing in the past has always been left to the local units of government or private entities. Historically, there has been no significant state financial assistance

available to local officials in meeting water supply needs. The DWRF will provide an on-going source of funding to maintain or improve drinking water quality and public health.

In addition, the on-site technical assistance, opportunities for source water assessment and protection, operator training and certification program, and the abandoned well management program provide a blend of direct and indirect aids to local communities across Michigan.

## VIII. ALLOCATION OF FUNDS

Allocation of funds among eligible uses is based on a three-step process. First, the MDEQ identifies the sources of funds and the spending limits for the DWRF within the given fiscal year. Next, a determination of the type and amount of financial assistance necessary for each supplier is made. Finally, funds are allocated among the projects consistent with amounts available and the projects' priority standing.

The following information reflects the sources of funds from FY1997 and FY1998 appropriations:

FY1999 Title IX Funds	\$21,959,000
FY1999 State Match	\$ 4,391,820
Anticipated Earnings	\$ 600,000
Released Funds (from Debt Service Reserve)	0
Repayments of Principal to DWRF	0
Repayments of Interest to DWRF	0
Carryover from FY1998	<u>\$28,300,000</u>
<b>Total Sources of Funds</b>	<b>\$55,250,820</b>

In FY1999, Michigan's DWRF requested set-asides for administration (4 percent), small community technical assistance (2 percent), and source water assessments (10 percent) through award of the EPA grant to the MDEQ for drinking water. The breakdown is as follows:

• DWRF Administration	\$ 878,360
• Technical Assistance	\$ 439,180
• Source Water Assessment	\$5,968,110

An application for a capitalization grant resulting from FY1999 federal appropriations was submitted by the department to the EPA. This application requested \$21,959,100 in federal funds, with a \$5,341,820 state match. This match consists of \$950,000 from an in-kind contribution credit against the Public Water Supply Supervision (PWSS) program administered by the DWRPD. The in-kind match meets the dollar-for-dollar requirement for source water protection, capacity development, and operator certification. The cash match meets the overall 20 percent program match requirement. The breakdown is as follows:

• DWRF Administration	\$878,360
• Technical Assistance	\$431,660
• Public Water System Supervision	\$ 0
• Source Water Protection	\$215,830

• Capacity Development	\$431,360
• Operator Certification	\$474,826
• Wellhead Protection	\$971,235

In total, Michigan's DWRP program received \$21,583,000 from the federal government and matched it with \$4,391,820 in combined regular and special state match. The regular state match was deposited directly into the DWRP accounts held in Treasury, rather than being drawn as disbursement requests are made.

The governor of each state may, at his or her discretion, transfer 33 percent of available moneys between the SRF and the DWRP programs. This may occur starting one year after a state receives its first capitalization grant for project funds. Thus, this option was not considered during the period covered by this annual report.

#### **IX. EPA AUTOMATED CLEARINGHOUSE ACTIVITIES**

As the federal capitalization grants for the set-aside funds were awarded, EPA automatically processed automated clearinghouse requests for increases to the state's draw capabilities. In FY1999, \$1,335,116 was drawn for the set-asides. In addition, \$41,716,795 was drawn for loan expenditures in FY1999.

#### **X. ASSURANCES**

The final guidelines from EPA set forth provisions that the state must give certain assurances in order to qualify for capitalization grant funding. These assurances were incorporated into the Operating Agreement signed by EPA, MDEQ and MMBA on December 9, 1997. Along with federal and state law, the Operating Agreement serves as the framework by which Michigan's DWRP program operates. The MDEQ and MMBA have fulfilled the stated assurances throughout the operation of the DWRP during this fiscal year.

#### **XI. SUMMARY**

Of the total \$51,380,000 loaned to the initial 21 projects during the fiscal year, the breakdown of categories is as follows (see Chart 2):

• Transmission/Distribution	25.29
• Treatment	18.09
• Storage	4.23
• Source	3.13
• Other	0.64

In FY1999, nine projects initiated operation. This brings the total to date to 15 (see Chart 3).

Over the course of the year, the MDEQ and MMBA processed \$44,158,489 in actual disbursements. This included \$1,106,578 in disbursement requests for MDEQ and MMBA administrative costs. Set-aside requests added another \$1,335,116.

Prior to September 30, 1999, the MDEQ was already at work preparing projects that were vying for FY2000 funding. Project plans from interested communities were due to the MDEQ on July 1. The Intended Use Plan and Project Priority List were prepared and a public hearing was held in August. Like FY1999 projects, these will also undergo environmental review by the project managers and district engineers in the MDEQ.